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INVESTOR IN PEOPLE

The Patent Office  
Concept House  
Cardiff Road  
Newport  
South Wales  
NP10 8QQ

I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has re-registered under the Companies Act 1980 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it is so re-registered.

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Signed

Dated

15 MAY 2001

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**Request for a grant of a patent**

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

1. Your reference

P/6838.GB

2. Patent application number

(The Patent Office will fill in this part)

**9910685.8**

07 MAY 1999

3. Full name, address and postcode of the or of each applicant  
(underline all surnames)

Argo Interactive Limited  
7 Dukes Court  
Chichester  
West Sussex  
PO19 2FX

Patents ADP number (if you know it)

7606734001

If the applicant is a corporate body, give the country/state of its incorporation

United Kingdom

4. Title of the invention

Data Processing Apparatus

5. Name of your agent (if you have one)

D YOUNG &amp; CO

"Address for service" in the United Kingdom to which all correspondence should be sent  
(including the postcode)

21 NEW FETTER LANE  
LONDON  
EC4A 1DA

Patents ADP number (if you have one)

59006

6. If you are declaring priority from one or more earlier patent applications, give the country and date of filing of the or each of these earlier applications and (if you know it) the or each application number

Country

Priority application number  
(if you know it)

Date of filing  
(day/month/year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and filing date of the earlier application

Number of earlier application

Date of filing  
(day/month/year)

8. Is a statement of inventorship and right to grant of a patent required in support of this request? (Answer 'Yes' if:  
a) any applicants named in part 3 is not an inventor, or  
b) there is an inventor who is not named as an applicant, or  
c) any named applicant is a corporate body.  
See note (d))

9. Enter the number of sheets for any of the following items you are filing with this form. Do not count copies of the same document

Continuation sheets of this form 0

Description 2

Claims(s) 0

Abstract 0

Drawing(s) 0

10. If you are also filing any of the following, state how many against each item.

Priority documents 0

Translations of priority documents 0

Statement of inventorship and right 0  
to grant of a patent (Patents Form 7/77)

Request for preliminary examination 0  
and search (Patents Form 9/77)

Request for substantive examination 0  
(Patents Form 10/77)

Any other documents 0  
(please specify)

11. I/We request the grant of a patent on the basis of this application.

Signature

Date

D Young & Co  
D YOUNG & CO  
Agents for the Applicants

07 May 1999

12. Name and daytime telephone number of the person to contact in the United Kingdom N A J Robinson 01703 634816

#### Warning

After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.

#### Notes

a) If you need help to fill in this form or you have any questions, please contact the Patent Office on 01645 500505

b) Write your answers in capital letters using black ink or you may type them

c) If there is not enough space for all the relevant details on any part of this form, please continue on a separate sheet of paper and write "see continuation sheet" in the relevant part(s). Any continuation sheet should be attached to this form.

d) If you answered 'Yes' Patents Form 7/77 will need to be filed.

e) Once you have filled in the form you must remember to sign and date it.

f) For details of the fee and ways to pay please contact the Patent Office.

P/6838.4B

A System for Enhancing the Human Readable Characteristics of Hypertext links  
Provisional Patent Application

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A System for Enhancing the Human Readable Characteristics of Hypertext Links

**Overview:**

A majority of information currently available in HTML and other mark-up languages has been designed for display on a Desktop Computer Monitor of a typical resolution of 640 by 480 or 1024 by 768 pixels. A typical small screen device only has a resolution of 120 by 90. This system has been designed to re-process the original document into a format that will be easier to interpret and understand on a small screen device.

This system has been designed for the purposes of converting information published in a hypertext mark-up language, to a format more suitable for small screen device. In a typical installation, the hypertext language would be HTML and the destination device would be PDA (Personal Digital Assistant) or Mobile phone.

The system can be used on any mark-up language and work both locally as well as across a network.

**Problem:**

Within a graphical environment, complicated hypertext documents can be created with images used to link to other hypertext documents. This is fine for use on a system that has a large multicolour display, but for a non-graphical viewer, such as a mobile telephone, or Personal Digital Assistant (PDA), graphic displays are a luxury, and text only methods are commonly employed.

Although many hypertext systems include support for text only displays, designers are not forced to use them. This can make the hypertext document readability very poor on non-graphical displays.

**Solution:**

Argo proposes a system of computer software, through which users are required to fetch hypertext documents that they wish to read. Typically this is in the form of an intermediate 'proxy server' but a stand-alone mode of operation can also be envisaged. The system processes the hypertext pages as they are transferred from the storage location to the reader. After identifying the links in the hypertext document, the textual part of the hypertext link (ie. the text which the user would select in order to go to the linked document) is checked to see if it is readable. This can be done in a number of ways, including (but not limited to):

- the number of underscores is greater than the number of spaces;
- the text is less than a certain number of characters long;
- the text is longer than a certain number of characters long;
- the average number of characters per word is greater than a certain limit;
- the text contains words which have capital letters after lowercase letters in the same word (eg. gooSE);
- the text contains words which are not in a dictionary;

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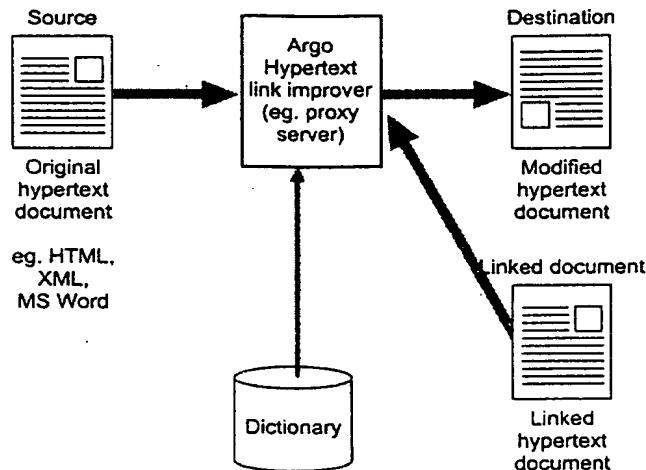
## A System for Enhancing the Human Readable Characteristics of Hypertext links

A combination of the above rules can be used to score the link in terms of readability, and if the score is above a threshold, then an alternative to the text is sought. This can also be done in several ways, including (but not limited to):

- fetching the linked hypertext document and retrieving the document's title (should one exist), or the first line of the text in the document;
- substituting the text with different text from a dictionary;
- replacing with the title of the current document (should one exist);

If the text that is to replace the link text is deemed more unreadable than the existing text, then the existing text is kept in place, and either no substitution takes place, or an alternative substitution is used.

The solution is shown in the diagram below:



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